

REMARKS

After the above amendments, Claims 78 - 89 remain active. Reconsideration is respectfully requested.

Applicants wish to thank Examiner Spector for the interview conducted in her office on August 6, 1997. The following addresses the issues discussed at that time.

Formal Matters

The Examiner states that copies of various references cited in a consolidated IDS filed with the last response in this case were not available. Applicants note that in accordance with 37 CFR 1.98 (d), they have not supplied copies of references that were already submitted in the related case U.S. Serial nos.: 08/252,628. According to their records, Applicants have submitted copies of all of the cited references in either the instant application or U.S. Serial No. 08/252,628. At the interview, the Examiner indicated that since copies of certain references remain unavailable in the Patent Office, copies thereof should be resubmitted. These references are all of those other than the ones cited by the Examiner in the pending Office Action, namely the following:

A1-A16, B2, B3, B5, B7, B11, B12, B14-B-20, B22-B40, C1-C12, C-14-C-22, C-24-C-26, C-29, C-31, C-33, C-38-C-41, C-43, C-46, C-47, C-50-C-52, C-54, C-56, C-57, C-59-C-71, C-73-C-75, C-77-C-83, C-86, C-88-C-100, C-102-C-113, C-115, C-116, C-118, C-119, C-121-C-130, C-132-C-135, C-137-C-142, C-144, C-145, C-147-C-150, C-154, C-155, C-161-C-164, C-166-C-176, C-178-C-184, C-186-C-195 and C-197-C-235.

Applicants are refiling herewith copies of each of these references along with copies of C-32 and C-177 for review by the Examiner. It is requested that the Examiner review all of the cited references and sign off on the IDS indicating such review. Should the Examiner consider it necessary to charge a fee pursuant to 37 CFR 1.97 (b), she is requested to do so prior to her review, in accordance with the authorization accompanying the last

*No copies
submitted*

response filed November 26, 1996. See the Transmittal Letter filed with the response (a copy of which is enclosed as Exhibit A).

Applicants note that they filed a replacement declaration with the last response filed in this application on November 26, 1996. As evidence of this fact, Applicants enclose Exhibits B and C. Exhibit B is a copy of the new declaration that was filed and Exhibit C is a copy of a date-stamped post-card receipt indicating receipt by the Patent Office of the new declaration. Accordingly, Applicants submit that they have complied with the requirement.

In response to the Examiner's objection relating to new matter, Applicants have deleted the statement of incorporation by reference in the cross reference to the prior applications that was added by amendment in the November 26, 1996 response.

The Examiner continues to object to the specification as failing to provide proper antecedent basis for nucleic acid molecules encoding polypeptides having as their C-termini an amino acid of from position 172 to 265 of Figure 11 (renumbered in the November 26, 1996 response as 151 to 244 by subtracting the length of the signal peptide, 21 amino acids). Applicants have amended the specification accordingly above. Applicants note that support for the upper limit of 244 may be found in the present application as filed in terms of MGDF-8, which appears at page 37, line 6 and in original Claim 7, and has amino acids 22-265 (renumbered in the last response as 1-244, as explained above and in the last response). Thus, no new matter has been introduced. Entry of this amendment is requested.

Double Patenting Rejections

Claims 78-89 remain provisionally rejected for obviousness-type double patenting over Claims 36-44 of co-pending application serial number 08/252,628 (the '628 application). Applicants again traverse this provisional rejection as explained below.

The truncated DNAs of the present claimed invention are not obvious from the DNA encoding the full-length TPO protein. The truncated

DNAs of the present invention all share the unexpected property that they encode truncated proteins having TPO activity. How could one-skilled in the art at the time this invention was made have predicted that truncation of the full-length DNA by nearly one-third could have provided a DNA that had the property of encoding a polypeptide having TPO activity? There is simply nothing in either Applicants' own prior related applications nor in the prior art that would have suggested this to the skilled worker. On the contrary, one would expect that such a degree of truncation would lead to a biologically inert molecule. The fact that DNA rather than protein is involved does not change the fact that the claimed molecules have the special property of being able to produce proteins with biological activity.

Applicants call the Examiner's attention to *In re Papesch*, 137 USPQ 43 (CCPA 1963) (filed herewith as Exhibit D), which stands for the proposition that if compounds have unexpected properties, i.e., properties not disclosed or suggested by the prior art, then it would not, as a matter of law, be obvious to conceive the idea of producing such compounds. This proposition has been reiterated in *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1990), *cert. denied*, 500 U.S. 904 (1991). Applicants recognize that the *Papesch* case (*Papesch*) relates more specifically to situations where there is a close structural relationship between the prior art compounds and the claimed compounds, leading to an expectation of similar properties, which is not necessarily the basis of the rejection in this case. In the present case, the prima facie case of obviousness is not based on an expectation of similar properties, but rather, the known utility of truncated DNAs to probe for longer DNAs. But in the present case, the presumed expectation would be that the claimed truncated DNAs have only the utility of probing; the fact that these particular truncated DNAs encode active proteins, as discovered herein, is truly unexpected. Therefore, *Papesch* is generally still applicable: the initial expectation of properties of the claimed truncated DNAs is shown not to be the end of the story in this case. The unexpected property of the DNAs in this case is therefore submitted to overcome the obviousness rejection herein in the same general way as the unexpected properties in *Papesch* overcame that rejection based on structural similarity. Applicants request that the Examiner reconsider her position based on *Papesch* and these comments.

In light of the above amendments and remarks, Applicants submit that this application is now in condition for further consideration and allowance, and an early notice to that effect is earnestly requested.

Respectfully submitted,



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8-14-97

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